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polymorphic CYP3A5 expression

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<151> 2000-12-28

<150> EP 01 10 0172.4

<151> 2001-01-16

<150> EP 01 11 8884.4

<151> 2001-08-16

<150> US 60/258,684

<151> 2000-12-28

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<151> 2000-12-29

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<151> 2001-01-18

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 ataaagcagg ctgtgaagag gggattccca tgctcgtgtg cctgataaca caactatcac 720
 aaacgctttg cgaaaccaca agtttgcaca aaggcaatcc caaccttaca caaaa 775

<210> 118
 <211> 1110
 <212> DNA
 <213> Homo sapiens

<400> 118
 taatgaaaat aagaattatt ttgatggctc taacagtgac atttatatca tctgttttat 60
 ctggagcatt ctataataag tttatatata gcaaatcaat aaaaacctct taaaaagta 120
 tcatcggata ctttccctgaa cattaaggag aaatctatag aactgaatga atgagaacca 180
 acaagtaaat atatgtgatc attgtaacca ttgttggtgt ggggcatttg tcagaactcc 240
 aatgtgatta ttaacatagg tgagaattaa tccactgtga ctttgcccat tgcttagaaa 300
 gaacattcat agtttaatta tgccctttttt gaccaagcac agtgggtcat gcctgtaatc 360
 ccagcacttt gggaggccga ggtgggtgga tcacctgagg tcaggagttc gagaccagcc 420
 tgaccaacat ggtgaaaccc catctctact aaaaatacaa aaattagcta ggtgtggtgg 480
 tatgcacctt taatctcagc taccaggag gctgaggcag gagaatcact tgaacctgga 540
 ggcagagggt gcagtgcagc gagacacacc attacactcc agcctgggtg acagagtgcg 600
 attccatctc aaaaaaaaaa aaaaaaaatt atgccttttt gaagcacata cattttataa 660
 catacaactg aatcccttat tatattatta gttttgattt aatgttttca aaccatctcc 720
 cctgatattt ctgggagatg ggaaacatgt tttcttacac ctcttgcatc ccattctcaa 780
 ctcccaactg tcttactgca atgaacactt aataagaaac agtcaattgg tcaattgatt 840
 gggcaacagg ctaaacacac tcattccttg tctgttccca cttctttctt tactttccct 900
 tcctgagtaa cttatcctaa agtcattagg tgggtggcag ccagatggtg gccacacatt 960
 aaggtagaaa agagagtgtc atgatgggtc caagtcagag acctagtag gtgaggatca 1020
 agtaggtgtt cacgtggaga aacagcccg cctgtgtgtg ggagtccaag caagcagaga 1080
 aaatgtcgac acagaggggt ggcctgaaaa 1110

<210> 119
 <211> 837
 <212> DNA
 <213> Homo sapiens

<400> 119
 caaaaattag ctaggtgtgg tggatatgcac ctataatctc agctaccagc gaggtgagg 60
 caggagaatc acttgaacct ggaggcagag gttgcagtga gccgagacgc accattacac 120
 tccagcctgg gtgacagagt gagattccat ctcaaaaaaa aaaaaaaaaa attatgcctt 180
 tttgaagcac atacatttta taacatacaa ctgaatccct tattatatta ttagttttga 240
 tttaatgttt tcaaacacat tcccctgata tttctgggag atgggaaaca tgttttctta 300
 cacctcttgc attccattct caactcccaa ctgtcttact gcaatgaaca cttataaaga 360
 aacagtcaat tgggtcaattg attgggcaac aggctaaaca cactcattcc ttgtctgttc 420
 ccacttcttt ctttactttt ccttcctgag taacttatcc taaagtcatt aggtgggtgg 480
 cagccagatg gtggccacac attaaggtag aaaagagagt gtcattgatg ttccaagtca 540
 gagacctagt aggggtgagga tcaagtaggt gttcacgtgg agaaacagcc cggcctgtgt 600

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atgggagtc  aagcaagcag  agaaaatgtc  gacacagagg  ggtggcctga  aaaagcagcc  660
agagcctaaa  cagggcatgg  agaacatatt  tagggcatga  ggtgaggagg  gcatccatga  720
gtgggaaggg  atgggtgagg  ttctactaca  taaaggggat  tgatgaaata  agtaataaaa  780
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```

<210> 120

<211> 1197

<212> DNA

<213> Homo sapiens

<400> 120

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ttctttcttt  actttccctt  cctgagtaac  ttatcctaaa  gtcattaggt  ggggtggcagc  60
cagatggtgg  ccacacatta  aggtagaaaa  gagagtgtca  tgatggttcc  aagtcagaga  120
cctagtaggg  tgaggatcaa  gtaggtgttc  acgtggagaa  acagcccggc  ctgtgtgtgg  180
gagtccaagc  aagcagagaa  aatgtcgaca  cagaggggtg  gcctgaaaaa  gcagccagag  240
cctaaacagg  gcatggagaa  catatcttag  gcatgagggt  aggagggcat  ccatgagttg  300
gaagggatgg  gtgaggtttc  actacataaa  ggggattgat  gaaataagta  aataaagtat  360
actggaagcc  aggtgtgtca  cttttgcaga  aaagagtcac  ggattcagaa  agggagaaaa  420
ctagcaggaa  tcctatgaaa  ttagattaaa  atggatgtat  ccacgtatat  tcataccctt  480
ctagatagat  aaatggttag  ataggtgata  aaaagataac  aagaggacaa  gataattaga  540
tagacataaa  tgtatgtatg  tgtttgtgtg  tgtgtacaaa  aaaacatata  ctccctactt  600
ctctccactg  atagggttag  gtaacaatgg  catttcaata  gcaatgagca  cacttagtgg  660
ccagatcttg  gcttattaat  accatcttcc  actgaaagga  accagagctt  tttagagaaa  720
tggctgattc  cagggccagg  attaagaatg  ttcaagataa  gcctaggata  cattttgtgc  780
caggaagcaa  gaagatgttc  aaatgatttc  caagtaatgt  ttggaaatga  tatttgaaaa  840
tgatttccaa  atgatatttc  caaatgattt  ccaaatgata  tatggaaaca  cttaaagact  900
ccactaaaag  actattagat  ctgataaaca  aattcagtaa  tgttgctgga  tacaaaatca  960
acatacaaaa  accagtagca  tttctgcatg  ccaacagtga  acaatctggc  aaaaaataaa  1020
aatgtaatcc  catttacaat  aaccccaaat  aaaactaaat  acctgggaat  taacttaaga  1080
gaaagatgtc  tacaattaat  attgtaaaac  actgatgaag  gaaattgaag  aagacacaaa  1140
aaagaaggat  attccatgtt  tatatatgtt  aagcattaat  attgttaaaa  atgtcca     1197

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<210> 121

<211> 817

<212> DNA

<213> Homo sapiens

<400> 121

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caaagcaaaa  atggacaaat  ggatcagatc  aagttaaaaa  gcttctgtac  cacaaagaaa  60
gcaatcaaca  aagtgaagac  acaaaccaca  gaatgggaga  aaatatcttc  aaagtcacac  120
tctgacaaca  gattaatagc  cagaatacat  gaagcgctca  aacaactctg  taaggaaaaa  180
tctaataatc  caatcaaaaa  atgggcaaaa  tttgaataga  catttttcaa  aagaagacat  240
acaaatgcca  cataggcata  tgataagggt  ctcaacatca  ctggtcatta  gagaaatgca  300
aatcaaaacc  acaatgagat  atcatctcac  ccagctaaa  atgggtttta  tccaaaagac  360
aggcaacaac  aaatgccagc  gagaatgtgg  agaaaaggga  acccttgtac  actgttggtg  420
taaattagtg  caaccactat  agagaacaat  ttggagggtc  ctcaaaacat  taaaattaac  480
attaaataga  gctaccacaa  tatccagaaa  tccccatgct  gggtatatac  ctggaagaaa  540
ggaaatcata  tattgaagag  ataacatcac  tccaatattc  acaatagcca  ctattcacaa  600
atgccaaagt  ttggaagcaa  cctaagtgtc  catcaacaga  tgaatggata  aagaaagtac  660
tccaattata  cacaatggag  cacaattcag  ccatgaaaaa  agcatgagat  cctgttatct  720
gtaataatat  ggatggaact  ggaggtcac  atgttaagtg  aaataagcca  ggacagaaaa  780
cacagatatt  gcaagttctc  acatacttgt  gggatct     817

```

<210> 122

<211> 1126

<212> DNA

<213> Homo sapiens

<400> 122

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cattaaaatt  aacattaaat  agagctacca  caatatccag  aaatccccat  gctgggtata  60

```

tacctggaag	aaaggaaatc	atatattgaa	gagataacat	cactccaata	ttcacaatag	120
ccactattca	caaatgccaa	gatttggaag	caacctaagt	gtccatcaac	agatgaatgg	180
ataaagaaag	tactccaatt	atacacaatg	gagcacaatt	cagccatgaa	aaaagcatga	240
gatcctgtta	tctgtaataa	tatggatgga	actggagggtc	atcatgttaa	gtgaaataag	300
ccaggcacag	aaacacagat	attgcaagtt	ctcacatact	tgtgggatct	acaaatcaaa	360
acaactgagc	taatgtctgg	gccttagtca	gtgtgtgacc	caagtactgg	gagcacagct	420
tttaaaatac	atcatgaatg	ctttaataca	ggaatgaata	gatgagaggc	acaaactggg	480
tgggtgttct	tctgatacac	agtatcttcc	ttgacagatt	cagtacaact	ctcaacagggt	540
aagtctcttc	atgttatgtt	accttatgag	gaattaagtg	gcagaacatg	atttctatta	600
ttttcctttg	cagaacaaga	ccaactttat	tagttggggac	acagtgtggc	tgcatttgag	660
tccaagcaa	ccattagtct	atagctatca	ccacagagtc	agaggggatg	agacgcccag	720
caatctcacc	caagacaact	ccaccaacat	tcctgggttac	ccaccatgtg	tacagtacc	780
tgctaggaac	cagggtcatg	aaagtaaata	ataccagact	gtgcccttga	ggagctcacc	840
tctgctaagg	gaaacaggca	tagaaactta	caatggtggt	agagagaaaa	gaggacaata	900
ggactgtgtg	aggggatag	gaggcaccca	gaggaggaaa	tggttacatt	tgtgtgagga	960
ggttggttaag	gaaaaatttt	agcagaaggg	gtctgtctgg	ctgggcttgg	aaggtatacgt	1020
aggagtcac	tagagggcac	aggtacactc	caggcagagg	gaatttcgtg	ggtaaagatg	1080
tgtaggtgtg	gcttgtgagg	atggatttca	attattctag	aatgaa		1126

```
<210> 123
<211> 624
<212> DNA
<213> Homo sapiens
```

<400> 123						
gattaagctt	ttcatgattc	ctcatagaac	atgaactcaa	aagagggtcag	caaaggggtg	60
tgtgcgattc	tttgctattg	gctgcagcta	tagccctgcc	tccttctcca	gcacataaat	120
ctttcagcag	cttggtctgaa	gactgctgtg	cagggcagag	aagctccagg	caaacagccc	180
agcaaacagc	agcactcagc	taaaaggaag	actcacagaa	cacagttgaa	gaaggaaagt	240
ggcgatggag	ctcatcccaa	atttggcggt	ggaaaccttg	cttctcctgg	ctgtcagcct	300
ggtgctcctc	tatctgtgag	taactgtcca	aactcctctc	tttgtttctt	tggacttggg	360
gtgctaatac	ggcccccttt	cccttatctg	ttttgaagat	caaaagagat	gttcaaggag	420
aagtagctga	agtgttggac	gctacaaacg	catagaagtt	attattatct	tatgcagatc	480
tatgaatgaa	taaaataagca	tttctcccat	ccaccttcta	attttgggtg	ctaggagggt	540
ttagggacag	catttggtag	tgggaatgat	ttgattagct	tagatctgac	gaagactaat	600
caatgaaaac	atggcagcgg	caga				624

```
<210> 124
<211> 624
<212> DNA
<213> Homo sapiens
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<400>	124						
gattaagctt	ttcatgattc	ctcatagaac	atgaactcaa	aagagggtcag	caaaggggtg	60	
tgtgcgattc	tttgctattg	gctgcagcta	tagccctgcc	tccttctcca	gcacataaat	120	
ctttcagcag	cttggctgaa	gactgctgtg	cagggcaggg	aagctccagg	taaacagccc	180	
agcaaacagc	agcactcagc	taaaaggaag	actcacagaa	cacagttgaa	gaaggaaagt	240	
ggcgatggac	ctcatcccaa	atttggcggt	ggaaacctgg	cttctcctgg	ctgtcagcct	300	
ggtgctcctc	tatctgtgag	taactgtcca	aactcctctc	tttgtttctt	tggacttggg	360	
gtgctaatac	ggcccccttt	cccttatctg	ttttgaagat	caaaagagat	gttcaaggag	420	
aagtagctga	agtgttggac	gctacaaacg	catagaagtt	attattatct	tatgcagatc	480	
tatgaatgaa	taaataagca	tttctcccat	ccaccttcta	attttgggtg	ctaggagggt	540	
ttagggacag	catttggtag	tgggaatgat	ttgattagct	tagatctgac	gaagactaat	600	
caatgaaaac	atggcagcgg	caga				624	

```
<210> 125
<211> 621
<212> DNA
<213> Homo sapiens
```

<400> 125

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gattaagctt ttcattgattc ctcatagaac atgaactcaa aagagggtcag caaaggggtg 60
tgtgcatgattc tttgctattg gctgcagcta tagccctgcc tccttctcca gcacataaat 120
ctttcagcag cttggctgaa gactgctgtg cagggcaggg aagctccagg caaacagccc 180
agcaaacagc agcactcagc taaaaggaag actcacagaa cacagttgaa gaaggaaagt 240
ggcagatggac ctcatcccaa atttggcggg ggaaacctgg cttctcctgg ctgtcagcct 300
ggtgctcctc tatctgtgag taactgtcca aactcctctc tttgtttcct tggacttggg 360
gtgctaatacg ggccccctttt cccttatctg ttttgaagat caaaagagat gttcaagaag 420
tagctgaagt gttggacgct acaaacgcat agaagttatt attatcttat gcagatctat 480
gaatgaataa ataagcattt ctcccatcca ctttctaatt ttgggtgacta ggagggttta 540
gggacagcat ttggtagtgg gaatgatttg attagcttag atctgacgaa gactaatcaa 600
tgaaaacatg gcagcggcag a                                     621

```

<210> 126

<211> 465

<212> DNA

<213> Homo sapiens

<400> 126

```

aggaaaggac ctgatgagtg aatgcaatta ctgatgttgg agttgctgtt attattttatc 60
gtgtacatat tacctccctc tcttgaccat tccagttcct gagtaactca ccagccctct 120
gatctataaa gtcacaatcc ctgtgacctg atttctgttt cactttgtag atatgggacc 180
cgtacatatg ggacttttta agagactggg aattccaggg cccacacctc tgcttttgtt 240
gggaaatggt ttgtcctatc gtcaggtgag ttgcttgagc ttctctttt gcttcttatg 300
gttgcaaaca tcagcttagt tccatcagta aaaatgcccc tccttgggag ggagttctga 360
ggtttcacat tttcagaaat ggtgggactg ggtgcagtgg atcatgcctg taatctcagc 420
ctctgtgagg ccaagactgg caaattgctt gagcccagga gtttg                                     465

```

<210> 127

<211> 33

<212> PRT

<213> Homo sapiens

<400> 127

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Met Asp Leu Ile Pro Asn Leu Ala Val Glu Thr Trp Leu Leu Leu Ala
  1             5             10             15

```

```

Val Ser Leu Val Leu Leu Tyr Leu Tyr Gly Thr Arg Thr Tyr Gly Thr
          20             25             30

```

Phe

<210> 128

<211> 602

<212> DNA

<213> Homo sapiens

<400> 128

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catagacaag ggtgagtcct tcagtactta gagaaaattc aagagtgact ttaaattccc 60
cacttcaaat atattctctg ttttcttgtc tttcccttaa gacatctctg aatagcttcc 120
ttcaactgcc agtgaaagat agtaggcctg atttcattgg acgcaactgt tttcagcccc 180
aattagaggt aggggtttatt ctatttataaa taataatcaa cttgtatttt gtttcctctc 240
ccagggtctc tggaaatttg acacagagtg ctataaaaag tatggaaaaa tgtgggggtg 300
agtattctga aaacctccat tggatagacc tgctactgtg aggaggttac cccactgcag 360
gatagtctct gccagggtct tcatgggatg aagctcttgt caacctaaat acaaacagag 420
agaggttctc tgaaagaaga ggataattac ttgggagtag aatattgcaa tgggaatctg 480
cttgccgtta taaactatgt gcaaattcag ggaggtaaac aagacaaaga tgctccatag 540
aaaatatgag aagaatctca taactgtttt gagataatta ttgttagcta caaagatcaa 600
ta                                     602

```

<210> 129
 <211> 594
 <212> DNA
 <213> Homo sapiens

<400> 129
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 ctgtgtgaga ctcttgctgt gtgtcacacc ctaatgaact agaacctaaag gttgctgtgt 120
 gtcgtacaac taggggtatg gattacataa cataatgatac aaagtctggc ttcctgggtg 180
 tggctccagc tgcagaatag ggctagtga gtttaatcag ctccgttgtc cccacacaga 240
 acgtatgaag gtcaactccc tgtgctggcc atcacagatc ccgacgtgat cagaacagtg 300
 ctagtgaag aatggtattc tgtcttcaca aatcgaaggg taagcatcca ttttttgaaa 360
 tttaaataat gattgatcca ctgattaat ttttattttg aaaaaaacat atattcacag 420
 aaggttacct aaaaaatgta caggaagggt ccatgtactc ttcacacctgt cccgcccagt 480
 ggtaacatct tgcaatcttg tatattgcaa tatatatcta gtatattcat attatcaggt 540
 tggcacaaaa gttaaaatgg caaactacag gctgggcata atggctcatg cctg 594

<210> 130
 <211> 594
 <212> DNA
 <213> Homo sapiens

<400> 130
 cagtatctct tccctgtttg gaccacatta cccttcatca tatgaagcct tgggtggctc 60
 ctgtgtgaga ctcttgctgt gtgtcacacc ctaatgaact agaacctaaag gttgctgtgt 120
 gtcgtacaac taggggtatg gattacataa cataatgatac aaagtctggc ttcctgggtg 180
 tggctccagc tgcagaatcg ggctagtga gtttaatcag ctctgttgtc cccacacaga 240
 acgtatgaag gtcaactccc tgtgctggcc atcacagatc ccgacgtgat cagaacagtg 300
 ctagtgaag aatggtattc tgtcttcaca aatcgaaggg taagcatcca ttttttgaaa 360
 tttaaataat gattgatcca ctgattaat ttttattttg aaaaaaacat atattcacag 420
 aaggttacct aaaaaatgta caggaagggt ccatgtactc ttcacacctgt cccgcccagt 480
 ggtaacatct tgcaatcttg tatattgcaa tatatatcta gtatattcat attatcaggt 540
 tggcacaaaa gttaaaatgg caaactacag gctgggcata atggctcatg cctg 594

<210> 131
 <211> 594
 <212> DNA
 <213> Homo sapiens

<400> 131
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 ctgtgtgaga ctcttgctgt gtgtcacacc ctaatgaact agaacctaaag gttgctgtgt 120
 gtcgtacaac taggggtatg gattacataa cataatgatac aaagtctggc ttcctgggtg 180
 tggctccagc tgcagaatcg ggctagtga gtttaatcag ctccgttgtc cccacacaga 240
 acgtatgaag gtcaactccc tgtgctggcc atcacagatc ccgacgtgat cagaacagtg 300
 ctagtgaag aatggtatta tgtcttcaca aatcgaaggg taagcatcca ttttttgaaa 360
 tttaaataat gattgatcca ctgattaat ttttattttg aaaaaaacat atattcacag 420
 aaggttacct aaaaaatgta caggaagggt ccatgtactc ttcacacctgt cccgcccagt 480
 ggtaacatct tgcaatcttg tatattgcaa tatatatcta gtatattcat attatcaggt 540
 tggcacaaaa gttaaaatgg caaactacag gctgggcata atggctcatg cctg 594

<210> 132
 <211> 60
 <212> PRT
 <213> Homo sapiens

<400> 132
 Met Trp Gly Thr Tyr Glu Gly Gln Leu Pro Val Leu Ala Ile Thr Asp

1

5

10

15

Pro Asp Val Ile Arg Thr Val Leu Val Lys Glu Cys Tyr Tyr Val Phe
 20 25 30

Thr Asn Arg Arg Ser Leu Gly Pro Val Gly Phe Met Lys Ser Ala Ile
 35 40 45

Ser Leu Ala Glu Asp Glu Glu Trp Lys Arg Ile Arg
 50 55 60

<210> 133

<211> 601

<212> DNA

<213> Homo sapiens

<400> 133

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 gtcgtacaac taggggtatg gattacataa cataatgatc aaagtctggc ttcctgggtg 180
 tggctccagc tgcagaatcg ggctagtga gtttaatcag ctccgttgct ccacacaga 240
 acgtatgaag gtcaactccc tgtgctggcc atcacagatc ccgacgtgat cagaacagtg 300
 ctagtgaag aatgttattc tgtcttcaca aatcgaagg taagcatcca ttttttga 360
 tttaaataat gattgatcca ctgattaaat ttttattttg aaaaaacat atattcacag 420
 aaggttacct aaaaaatgta ctaaaaaaat gaaggttcca tgtactcttc atcctgtccc 480
 gccagtggt aacatcttgc aatcttgtat attgcaatat atatctagta tattcatatt 540
 atcagggttg cacaaaagtt aaaatggcaa actacaggct gggcataatg gctcatgcct 600
 g 601

<210> 134

<211> 603

<212> DNA

<213> Homo sapiens

<400> 134

agcggaaaac tcaaggaggt atgaaaataa gatgagtctt aattagaaat gtaaagaatg 60
 aatctgggga caggtagaaa gtaagatcac agtccgtttc caaggggtag tccactgagt 120
 tcgagcttcc taaaaatggt ctttgatctt tatgtacaga aaagacatca caaaattcat 180
 tacaaaatgt cacttactgc tccatgctgg agaaagccat atccttctgg gacttgagtc 240
 tgcacattta actacaggta ctgatctgtt ttgtgcttag atgttcccca tcattgcccc 300
 gtatggagat gtattggtga gaaacttgag gcgggaagca gagaaaggca agcctgtcac 360
 cttgaaagag taagtaggag cacagccatg gggttctgag ctgtcatgag cccttccagc 420
 tgctgccat ggagtcgaca gtcgcactgt tgggttactc cagtgaccag acaaaagcag 480
 ggcagcgtg caactccaaa gagccaccta agagggagtg gctcccatga ggcggcaagt 540
 cagcaaggga aaagggcctt ctctcctgtg cacaggagcc aggatttact tatctgttaa 600
 ctt 603

<210> 135

<211> 603

<212> DNA

<213> Homo sapiens

<400> 135

agcggaaaac tcaaggaggt atgaaaataa gatgagtctt aattagaaat gtaaagaatg 60
 aatctgggga caggtagaaa gtaagatcac agtccgtttc caaggggtag tccactgagt 120
 tcgagcttcc taaaaatggt cttttatctt tatgtacaga aaagacatca caaaattcat 180
 tacaaaatgt cacttactgc tccatgctgg agaaagccat atccttctgg gacttgagtc 240
 cgcacattta actacaggta ctgatctgtt ttgtgcttag atgttcccca tcattgcccc 300
 gtatggagat gtattggtga gaaacttgag gcgggaagca gagaaaggca agcctgtcac 360
 cttgaaagag taagtaggag cacagccatg gggttctgag ctgtcatgag cccttccagc 420


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tgccctgccat ggagtcgaca gtgcactgt tgggttactc cagtgaccag acaaaagcag 480
ggcagcgctg caactccaaa gagccaccta agagggagtg gctcccatga ggcggcaagt 540
cagcaaggga aaagggcctt ctctcctgtg cacaggagcc aggatttact tatctgttaa 600
ctt 603

```

<210> 136

<211> 626

<212> DNA

<213> Homo sapiens

<400> 136

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aatgtttttg ttcactgggtg actcaggtaa cagctcttca agaagccata gggaggttga 120
gggaggggaag tcgtcaagaa gggaggttga ggactgcact tttgatttac ttctgacttc 180
acgagtcact ttctgccaaa gaaatctctc cttttgcttc tagcaccgac tagatttcct 240
tcagctgatg attgactccc agaattcgaa agaaactgag tcccacaaag gtaaccaagg 300
agtgtctctg agggctactg gcggggacac taagagggag ggccttggtc tgaaaatgtg 360
caggaagtat tccaggaaga tgagaatttt tgccacatag cagaacaaca cacattttaga 420
tggtataaat ggtagctgga ggcactttcc agaagcccac aggtatagcc atgttccagg 480
ctgaaagggc aaccctaagc aaacctagaa tgcttgaggag acagtcagtg gtttgtggat 540
cacctacatg agatcaaatt ccagttctca gcctcctcca gatccaccaa gtgagaacct 600
ctacttgga aatttatatca aacata 626

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<210> 137

<211> 623

<212> DNA

<213> Homo sapiens

<400> 137

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attggacatg atagctagat ttgtttcagg aaaacatcct gctttccaag gatttagatg 60
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gggaggggaag tcaagaaggg aggttgagga ctgcactttt gatttacttc tgacttcacg 180
agtcactttc tgccaaagaa atctctcctt ttgtctctag caccgactag atttccttca 240
gctgatgatt gactcccaga attcgaaaga aactgagtc cacaaaggta accaaggagt 300
gcttctgagg gctactggcg gggacactaa gagggagggc cttgttctga aaatgtgcag 360
gaattattcc aggaagatga gaatttttgc cacatagcag aacaacacac atttagatgt 420
tataaatggt agctggaggc actttccaga agcccacagg tatagccatg ttccaggctg 480
aaagggcaac cctaagcaaa cctagaatgc ttggaggaca gtcagtggtt tgtggatcac 540
ctacatgaga tcaaatgccg gttctcagcc tcttcagat ccaccaagtg agaacctcta 600
cttggaatt tatatcaaac ata 623

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<210> 138

<211> 826

<212> DNA

<213> Homo sapiens

<400> 138

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agataaagta ctttttaggat cattcaaggc acacacccat aacactgagt atgtaagaca 60
gaaatgctct ctctggaaat tacagcagtg ctggtgctgg gatgccatga tgaggagtgt 120
gtggcccaaca atcatgtaga ccttgggaaa acctggatta aaatgatttt gcgtcatcct 180
ggccctgtat aagatacata tcagaatgaa aaccactccc agtgtgactt tgaattgctt 240
ttccattttt tcttcttggg attagagaac ttcacttaga tttcatctaa gctgtgatgt 300
tgtacgttga cctgatttac ctaaaatgtc tttcctctcc tttcagctct gtctgatctg 360
gagctcgtag cccagtcaat aatcttcatt tttgctgggt atgaaaccac cagcagtgtt 420
ctttccttca ctttatatga actggccact caccctgatg tccagcagaa actgcaaaaag 480
gagattgatg cagtttttgc caataagggt aggggatgac ccctggagat gaaggggaaga 540
ggtgaagcct tagcaaaaaa gcctcctcac cactccccag gagaattttt ataaaaagca 600
taatcatgta ttccttacct gacataatgt aggaagcctc tgaggagaaa aacaaaggga 660
gaaacataga gaaagggttc tactggcaga agcataagat ctttgtacaa tattgtggc 720
cctggttcac ctgtttactg ttatcacaat aatgctaagt aaaaaaaaaa aaaaaaaaaa 780

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aaaaaaaaa aggagtgtgg cgagaagatg gccaaacagg aacagc

826

<210> 139

<211> 795

<212> DNA

<213> Homo sapiens

<400> 139

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gatcatttac cagtatgagt tattctctgg agcttctaata acttcagtag tactgcatgg 180
actcagttga gagttaattc aaaatctcag attatccaat tctgtttctt tccttccagg 240
caccacctac ctatgatgcc gtggtacaga tggagtacct tgacatgggt gtgaatgaaa 300
cactcagatt attcccagtt gctattagac ttgagaggac ttgcaagaaa gatggtgaaa 360
tcaatggggg attcattccc aaagggtcaa tgggtggtgat tccaacttat gctcttcacc 420
atgacccaaa gtactggaca gagcctgagg agttccgccc tgaaagggtac aagtctccag 480
ggaaatggag ctcaccctga cccaggctgg ttcaagcata ttctgcctct cttaatctac 540
atgacaatcg tgtggttgta caatcatttg cttgtaagtc tttttatcac aaaaaagtg 600
taattatcaa actttacaaa ccacagacta gaaaaaacga aactacatcc atccacagtc 660
ccagcacaag acaaagataa tcaattatgt ccctgtgggc atttttctac gcctatatag 720
atttttaaaa attagaatgg tatcactttt tatttggttt gaattgctgc ttacttgatt 780
taacaggaaa ctatc 795
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<210> 140

<211> 796

<212> DNA

<213> Homo sapiens

<400> 140

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agtaggtcac tgagcacatc aatggacatg ccagttatta aaatacttca cgaatactat 120
gatcatttac cagtatgagt tattctctgg agcttctaata acttcaatag tactgcatgg 180
actcagttga gagttaattc aaaatctcag attatccaat tctgtttctt tccttccagg 240
caccacctta cctatgatgc cgtggtacag atggagtacc ttgacatggg ggtgaatgaa 300
acactcagat tattcccagt tgctattaga cttgagagga cttgcaagaa agatggtgaa 360
atcaatgggg tattcattcc caaagggtca atgggtggtga ttccaactta tgctcttcac 420
catgacccaa agtactggac agagcctgag gagttccgcc ctgaaaggta caagtctcca 480
gggaaatgga gctcaccctg acccaggctg gttcaagcat attctgcctc tcttaatcta 540
catgacaatc gtgtggttgt acaatcattt gcttgtaagt ctttttatca caaaaaagtg 600
ataattatca aactttacaa accacagact agaaaaaacg aaactacatc catccacagt 660
cccagcaca gacaaagata atcaattatg tccctgtggg catttttcta cgcctatata 720
gatttttaaa aattagaatg gtatcacttt ttatttggtt tgaattgctg cttacttgat 780
ttaacaggaa actatc 796
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<210> 141

<211> 59

<212> PRT

<213> Homo sapiens

<400> 141

```
Ala Leu Ser Asp Leu Glu Leu Ala Ala Gln Ser Ile Ile Phe Ile Phe
  1             5             10             15

Ala Gly Tyr Glu Thr Thr Ser Ser Val Leu Ser Phe Thr Leu Tyr Glu
          20             25             30

Leu Ala Thr His Pro Asp Val Gln Gln Lys Leu Gln Lys Glu Ile Asp
          35             40             45

Ala Val Leu Pro Asn Lys Ala Pro Pro Tyr Leu
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50

55

<210> 142
 <211> 795
 <212> DNA
 <213> Homo sapiens

<400> 142
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 agtaggtcac tgagcacatc aatggacatg ccagttatta aaatacttca cgaatactat 120
 gatcattttac cagtatgagt tattctctgg agcttctaata acttcaatag tactgcatgg 180
 actcagttga gagttaattc aaaatctcag attatccaat tctgtttctt tccttccagg 240
 caccacctac ctatgatgcc gtggtacaga tggagtacct tgacatgggt gtgaatgaaa 300
 cactcagatt attcccagtt gctattagac ttgagaggac ttgcaagaaa gatgttgaaa 360
 tcaatgggggt attcattccc aaaggggtcaa tgggtgggtgat tccaacttat gctcttcacc 420
 atgacccaaa gtactggaca gagcctgagg agttccgccc tgaaagggtac aagtctccag 480
 ggaaatggag ctccacctga cccaggctgg ttcaagcata ttctgctctt cttaatctac 540
 atgacaatcg tgtgggtgta caatcatttg cttgtaagtc tttttatcac aaaaaagtga 600
 taattatcaa actttacaaa ccacagacta gaaaaaacga aattacatcc atccacagtc 660
 ccagcacaag acaaagataa tcaattatgt ccctgtgggc atttttctac gcctatatag 720
 atttttaaaa attagaatgg tatcactttt tatttggttt gaattgctgc ttacttgatt 780
 taacaggaaa ctatc 795

<210> 143
 <211> 616
 <212> DNA
 <213> Homo sapiens

<400> 143
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 ttttactatc cagtattttac ccagcttata gattaagtat gaagagttca agatacatgg 120
 tgtaagagtg cgtttttata tgcttgcaaa gcatttttgt catatttttt ctacttttgt 180
 tccatctttt ctcttttcac ttcatthatt aattctccat atgcttggtt aactattgta 240
 gatccccctg aaattagaca cgcaaggact tcttcaacca gaaaaaccca ttgttctaaa 300
 ggtggattca agagatggaa ccctaagtgg agaattgagtt attctaagga cttctacttt 360
 ggtcttcaag aaagctgtgc cccagaacac cagagatttc aacttagtca ataaaacctt 420
 gaaataaaga tgggcttaat ctaattgtact gcatgagtag ttggtgattt tgtacattca 480
 ttgagctctc ccagagtctg tgtagagtgt tgtgcattat gtagtataaa ggaggtgacc 540
 aggtaagtga cagataggta gactcagctt ctctgcttct cataggacta cctctaccca 600
 cctctagtta gcatta 616

<210> 144
 <211> 1508
 <212> DNA
 <213> Homo sapiens

<400> 144
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 atggactttt taagagactg ggaattccag ggccacacac tctgcctttg ttgggaaatg 120
 ttttgccta tcgtcagggt ctctggaaat ttgacacaga gtgctataaa aagtatggaa 180
 aaatgtgggg aacgtatgaa ggtcaactcc ctgtgctggc catcacagat cccgacgtga 240
 tcagaacagt gctagtgaag gaatgttatt ctgtcttcac aaatcgaagg tctttaggcc 300
 cagtgggatt tatgaaaagt gccatctctt tagctgagga tgaagaatgg aagagaatac 360
 ggtcattgct gtctccaacc ttcaccagcg gaaaactcaa ggagatgttc cccatcattg 420
 cccagtatgg agatgtattg gtgagaaact tgaggcgggg agcagagaaa ggcaagcctg 480
 tcaccttgaa agacatcttt ggggcctaca gcatggatgt gattactggc acatcatttg 540
 gagtgaacat cgactctctc aacaatccac aagaccctt tgtggagagc actaagaagt 600
 tcctaaaatt tggtttctta gatccattat ttctctcaat aatactcttt ccattcctta 660
 ccccagtttt tgaagcatta aatgtctctc tgtttccaaa agataccata aatttttttaa 720
 gtaaactctg aaacagaatg aagaaaagtc gcctcaacga caaacaaaag caccgactag 780

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atttccttca gctgatgatt gactcccaga attcgaaaga aactgagtc cacaaagctc 840
tgtctgatct ggagctcgca gccaggtcaa taatcttcat ttttgctggc tatgaaacca 900
ccagcagtggt tctttccttc acttttatatg aactggccac tcaccctgat gtccagcaga 960
aactgcaaaa ggagattgat gcagttttgc ccaataaggc accacctacc tatgatgccg 1020
tggtacagat ggagtacctt gacatggtgg tgaatgaaac actcagatta ttcccagttg 1080
ctattagact tgagaggact tgcaagaaaag atgttgaaat caatggggta ttcattccca 1140
aagggtcaat ggtggtgatt ccaacttatg ctcttcacca tgacccaaag tactggacag 1200
agcctgagga gttccgcctt gaaagggttca gtaagaagaa ggacagcata gatccttaca 1260
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acatgaaact tgctctaata agagtccttc agaacttctc cttcaaacct tgtaaagaaa 1380
cacagatccc cttgaaatta gacacgcaag gacttcttca accagaaaaa cccattgttc 1440
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atctgcag 1508

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<210> 145
 <211> 60
 <212> PRT
 <213> Homo sapiens

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<400> 145
Pro Val Ala Ile Arg Leu Glu Arg Thr Cys Lys Lys Asp Val Glu Ile
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Asn Gly Val Phe Ile Pro Lys Gly Ser Met Val Val Ile Pro Asn Tyr
          20              25              30
Ala Leu His His Asp Pro Lys Tyr Trp Thr Glu Pro Glu Glu Phe Arg
          35              40              45
Pro Glu Arg Phe Ser Lys Lys Lys Asp Ser Ile Asp
          50              55              60

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<210> 146
 <211> 11
 <212> DNA
 <213> Homo sapiens

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<400> 146
tttcagtatc t 11

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<210> 147
 <211> 11
 <212> DNA
 <213> Homo sapiens

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<400> 147
tttcaatatc t 11

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<210> 148
 <211> 11
 <212> DNA
 <213> Homo sapiens

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<400> 148
tttaatagaa g 11

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<210> 149
 <211> 11

<212> DNA
<213> Homo sapiens

<400> 149
tttaacagaa g 11

<210> 150
<211> 11
<212> DNA
<213> Homo sapiens

<400> 150
attccccata g 11

<210> 151
<211> 11
<212> DNA
<213> Homo sapiens

<400> 151
attcctcata g 11

<210> 152
<211> 11
<212> DNA
<213> Homo sapiens

<400> 152
tagaatatga a 11

<210> 153
<211> 11
<212> DNA
<213> Homo sapiens

<400> 153
tagaacatga a 11

<210> 154
<211> 11
<212> DNA
<213> Homo sapiens

<400> 154
gtaacttatc c 11

<210> 155
<211> 11
<212> DNA
<213> Homo sapiens

<400> 155
gtaacgtatc c 11

<210> 156
<211> 11

<212> DNA
<213> Homo sapiens

<400> 156
ttcacgtgga g 11

<210> 157
<211> 11
<212> DNA
<213> Homo sapiens

<400> 157
ttcacatgga g 11

<210> 158
<211> 11
<212> DNA
<213> Homo sapiens

<400> 158
tggacgcaac t 11

<210> 159
<211> 11
<212> DNA
<213> Homo sapiens

<400> 159
tggacacaac t 11

<210> 160
<211> 11
<212> DNA
<213> Homo sapiens

<400> 160
gaggataatt a 11

<210> 161
<211> 11
<212> DNA
<213> Homo sapiens

<400> 161
gaggaaaatt a 11

<210> 162
<211> 11
<212> DNA
<213> Homo sapiens

<400> 162
catcattgcc c 11

<210> 163
<211> 11

<212> DNA
<213> Homo sapiens

<400> 163
catcactgcc c 11

<210> 164
<211> 11
<212> DNA
<213> Homo sapiens

<400> 164
cagtcgcact g 11

<210> 165
<211> 11
<212> DNA
<213> Homo sapiens

<400> 165
cagtcacact g 11

<210> 166
<211> 11
<212> DNA
<213> Homo sapiens

<400> 166
actaagaagt t 11

<210> 167
<211> 11
<212> DNA
<213> Homo sapiens

<400> 167
actaaaaagt t 11

<210> 168
<211> 11
<212> DNA
<213> Homo sapiens

<400> 168
gatccattat t 11

<210> 169
<211> 11
<212> DNA
<213> Homo sapiens

<400> 169
gatccgttat t 11

<210> 170
<211> 11

<212> DNA
<213> Homo sapiens

<400> 170
caattccatt g 11

<210> 171
<211> 11
<212> DNA
<213> Homo sapiens

<400> 171
caatttcatt g 11

<210> 172
<211> 11
<212> DNA
<213> Homo sapiens

<400> 172
tgtcaatcta g 11

<210> 173
<211> 11
<212> DNA
<213> Homo sapiens

<400> 173
tgtcagtcta g 11

<210> 174
<211> 11
<212> DNA
<213> Homo sapiens

<400> 174
ttgtttgttt t 11

<210> 175
<211> 11
<212> DNA
<213> Homo sapiens

<400> 175
ttgttcgttt t 11

<210> 176
<211> 11
<212> DNA
<213> Homo sapiens

<400> 176
aaataaagaa g 11

<210> 177
<211> 11

<212> DNA
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<400> 177
aaatacagaa g 11

<210> 178
<211> 11
<212> DNA
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<400> 178
tttgcgtcat c 11

<210> 179
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<400> 179
tttgcacatcat c 11

<210> 180
<211> 11
<212> DNA
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<400> 180
ttgacactgat t 11

<210> 181
<211> 11
<212> DNA
<213> Homo sapiens

<400> 181
ttgacttgat t 11

<210> 182
<211> 11
<212> DNA
<213> Homo sapiens

<400> 182
tattgtagat c 11

<210> 183
<211> 11
<212> DNA
<213> Homo sapiens

<400> 183
tattgcagat c 11

<210> 184
<211> 11

<212> DNA
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<400> 184
ccttttccct t 11

<210> 185
<211> 11
<212> DNA
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cctttcccct t 11

<210> 186
<211> 11
<212> DNA
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<400> 186
cttatgcaga t 11

<210> 187
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<212> DNA
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<400> 187
cttatacaga t 11

<210> 188
<211> 11
<212> DNA
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<400> 188
aatacgggtca t 11

<210> 189
<211> 11
<212> DNA
<213> Homo sapiens

<400> 189
aatacagtca t 11

<210> 190
<211> 11
<212> DNA
<213> Homo sapiens

<400> 190
ggaggtatga a 11

<210> 191
<211> 11

<212> DNA
<213> Homo sapiens

<400> 191
ggaggcatga a 11

<210> 192
<211> 11
<212> DNA
<213> Homo sapiens

<400> 192
agtccgtttc c 11

<210> 193
<211> 11
<212> DNA
<213> Homo sapiens

<400> 193
agtccatttc c 11

<210> 194
<211> 11
<212> DNA
<213> Homo sapiens

<400> 194
tctgccaaag a 11

<210> 195
<211> 11
<212> DNA
<213> Homo sapiens

<400> 195
tctgcgaaag a 11

<210> 196
<211> 11
<212> DNA
<213> Homo sapiens

<400> 196
accattggt c 11

<210> 197
<211> 11
<212> DNA
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<400> 197
accactggt c 11

<210> 198
<211> 11

<212> DNA
<213> Homo sapiens

<400> 198
gctactggct g

11

<210> 199
<211> 11
<212> DNA
<213> Homo sapiens

<400> 199
gctaccggct g

11

<210> 200
<211> 11
<212> DNA
<213> Homo sapiens

<400> 200
gaaatcaccc g

11

<210> 201
<211> 11
<212> DNA
<213> Homo sapiens

<400> 201
gaaattaccc g

11

<210> 202
<211> 33
<212> DNA
<213> Homo sapiens

<400> 202
gctctactgt catttctaac cataatctct tta

33

<210> 203
<211> 27
<212> DNA
<213> Homo sapiens

<400> 203
gcttcatatg atgaagggtg atgtggt

27

<210> 204
<211> 18
<212> DNA
<213> Homo sapiens

<400> 204
tgtctttcag tatctctt

18

<210> 205
<211> 19

<212> DNA
<213> Homo sapiens

<400> 205
tgtcttttcaa tatctcttc

19

<210> 206
<211> 444
<212> DNA
<213> Homo sapiens

<400> 206
catttagtcc ttgtgagcac ttgatgattt acctgccttc aattttttcac tgaccttaata 60
ttcttttttga taatgaagta ttttaaacaat ataaaacatt atggagagtg gcataggaga 120
taccacagta tgtaccaccc agcttaacga atgctctact gtcatttcta accataatct 180
ctttaaagag ctcttttgtc tttcaatata tcttcctgt ttggaccaca ttacccttca 240
tcatatgaag ccttgggtgg ctctgtgtg agactcttgc tgtgtgtcac accctaata 300
actagaacct aaggttgctg tgtgtcgtac aactaggggt atggattaca taacataatg 360
atcaaagtct ggcttcctgg gtgtggctcc agctgcagaa tcgggctagt gaagtttaata 420
cagctccgtt gtccccacac agaa 444

<210> 207
<211> 830
<212> DNA
<213> Homo sapiens

<400> 207
tggtcaccca ccatgtgtac agtaccctgc taggggtccag ggtcatgaaa gtaaataata 60
ccagactgtg cccttgagga actcacctct gctaagggaa acaggcacag aaaccacaa 120
gggtggtaga gaggaaatag gacaatagga ctgtgtgagg gggataggag gcaccagag 180
gaggaaatgg ttacatctgt gtgaggaggt tggtaaggaa agactttaac agaaggggtc 240
tgtctggctg ggcttgcaag gatgtgtagg agtcatctag ggggcacaag tacactccag 300
gcagagggaa ttgcatgggt aaagatctgc agttgtggct tgtggggatg gatttcaagt 360
attctggaat gaagacagcc atggaaacaa gggcaggtga gaggatattt aagaggcttc 420
atgccaatgg ctccacttca gtttctgata agaactcagg ttccgtggac tccctgataa 480
aactgattaa gttgtttatg attccccata gaatatgaac tcaaaggagg taagcaaagg 540
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aaacatttca gcagcttgac ctaagactgc tgtgcagggc agggatgctc caggcagaca 660
gcccagcaaa caacagcaca cagctgaaaag taagactcag aggagacagt tgaagaaggc 720
aagtggcgat ggacctcatc ccaaatattg cggtggaaac ctggcttctc ctggctgtca 780
gcctgggtgct cctctatctg tcagtaactg tccagattcc tctcctctgt 830

<210> 208
<211> 830
<212> DNA
<213> Homo sapiens

<400> 208
tggtcaccca ccatgtgtac agtaccctgc taggggtccag ggtcatgaaa gtaaataata 60
ccagactgtg cccttgagga actcacctct gctaagggaa acaggcacag aaaccacaa 120
gggtggtaga gaggaaatag gacaatagga ctgtgtgagg gggataggag gcaccagag 180
gaggaaatgg ttacatctgt gtgaggaggt tggtaaggaa agactttaat agaaggggtc 240
tgtctggctg ggcttgcaag gatgtgtagg agtcatctag ggggcacaag tacactccag 300
gcagagggaa ttgcatgggt aaagatctgc agttgtggct tgtggggatg gatttcaagt 360
attctggaat gaagacagcc atggaaacaa gggcaggtga gaggatattt aagaggcttc 420
atgccaatgg ctccacttca gtttctgata agaactcagg ttccgtggac tccctgataa 480
aactgattaa gttgtttatg attcctcata gaatatgaac tcaaaggagg taagcaaagg 540
ggtgtgtgcg attctttgct actggctgca gctgcagccc cacctccttc tccagcacat 600
aaacatttca gcagcttgac ctaagactgc tgtgcagggc agggatgctc caggcagaca 660
gcccagcaaa caacagcaca cagctgaaaag taagactcag aggagacagt tgaagaaggc 720

```

aagtggcgat ggacctcatc ccaaatttgg cggtggaaac ctggcttctc ctggctgtca 780
gcctggtgct cctctatctg tcagtaactg tccagattcc tctcctctgt 830

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<210> 209

<211> 830

<212> DNA

<213> Homo sapiens

<400> 209

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tggtcaccca ccatgtgtac agtaccctgc taggggtccag ggatcatgaaa gtaaataata 60
ccagactgtg cccttgagga actcacctct gctaagggaa acaggcacag aaaccacaa 120
gggtggtaga gaggaaatag gacaatagga ctgtgtgagg gggataggag gcaccagag 180
gaggaaatgg ttacatctgt gtgaggaggt tggtaaggaa agactttaat agaaggggtc 240
tgtctggctg ggcttgcaag gatgtgtagg agtcatctag ggggcacaag taaactccag 300
gcagagggaa ttgcatgggt aaagatctgc agttgtggct tgtggggatg gatttcaagt 360
attctggaat gaagacagcc atggaaacaa gggcaggtga gaggatattt aagaggcttc 420
atgccaatgg ctccacttca gtttctgata agaactcagg tccctgggac tccctgataa 480
aactgattaa gttgtttatg attccccata gaacatgaac tcaaaggagg taagcaaagg 540
ggtgtgtgcy attctttgct actggctgca gctgcagccc cacctccttc tccagcacat 600
aaacatttca gcagcttgac ctaagactgc tgtgcagggc agggatgctc caggcagaca 660
gcccagcaaa caacagcaca cagctgaaag taagactcag aggagacagt tgaagaaggc 720
aagtggcgat ggacctcatc ccaaatttgg cggtggaaac ctggcttctc ctggctgtca 780
gcctggtgct cctctatctg tcagtaactg tccagattcc tctcctctgt 830

```

<210> 210

<211> 837

<212> DNA

<213> Homo sapiens

<400> 210

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caaaaattag ctaggtgtgg tggatgacac ctataatctc agctaccag gaggtgagg 60
caggagaatc acttgaacct ggaggcagag gttgcagtga gccgagacgc accattacac 120
tccagcctgg gtgacagagt gagattccat ctcaaaaaaa aaaaaaaaaa attatgcctt 180
tttgaagcac atacatttta taacatacaa ctgaatccct tattatatta ttagttttga 240
tttaatgttt tcaaaccatc tcccctgata tttctgggag atgggaaaca tgttttctta 300
cacctcttgc attccattct caactcccaa ctgtcttact gcaatgaaca ctttaataaga 360
aacagtcaat tgggtcaattg attgggcaac aggctaaaca cactcattcc ttgtctgttc 420
ccacttcttt ctttactttc ctttcttgag taacgtatcc taaagtcatt aggtgggtgg 480
cagccagatg gtggccacac attaaggtag aaaagagagt gtcattgatg ttccaagtca 540
gagacctagt aggggtgagga tcaagtaggt gttcacgtgg agaaacagcc cggcctgtgt 600
gtgggagtcc aagcaagcag agaaaatgac gacacagagg ggtggcctga aaaagcagcc 660
agagcctaaa cagggcatgg agaacaatatt tagggcatga ggtgaggagg gcatccatga 720
gtgggaaggg atgggtgagg tttcactaca taaaggggat tgatgaaata agtaataaaa 780
gtatactgga agccaggtgt gtcacttttg cagaaaagag tcatggattc agaaagg 837

```

<210> 211

<211> 837

<212> DNA

<213> Homo sapiens

<400> 211

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caaaaattag ctaggtgtgg tggatgacac ctataatctc agctaccag gaggtgagg 60
caggagaatc acttgaacct ggaggcagag gttgcagtga gccgagacgc accattacac 120
tccagcctgg gtgacagagt gagattccat ctcaaaaaaa aaaaaaaaaa attatgcctt 180
tttgaagcac atacatttta taacatacaa ctgaatccct tattatatta ttagttttga 240
tttaatgttt tcaaaccatc tcccctgata tttctgggag atgggaaaca tgttttctta 300
cacctcttgc attccattct caactcccaa ctgtcttact gcaatgaaca ctttaataaga 360
aacagtcaat tgggtcaattg attgggcaac aggctaaaca cactcattcc ttgtctgttc 420
ccacttcttt ctttactttc ctttcttgag taacttatcc taaagtcatt aggtgggtgg 480
cagccagatg gtggccacac attaaggtag aaaagagagt gtcattgatg ttccaagtca 540

```

```

gagacctagt aggggtgagga tcaagtaggt gttcacatgg agaaacagcc cggcctgtgt 600
gtgggagtc aagcaagcag agaaaatgtc gacacagagg ggtggcctga aaaagcagcc 660
agagcctaaa cagggcatgg agaacatatt tagggcatga ggtgaggagg gcatccatga 720
gtgggaaggg atgggtgagg tttcactaca taaaggggat tgatgaaata agtaaataaa 780
gtatactgga agccaggtgt gtcacttttt cagaaaagag tcatggattc agaaagg 837

```

```

<210> 212
<211> 602
<212> DNA
<213> Homo sapiens

```

```

<400> 212
catagacaag ggtgagtcct tcagtactta gagaaaattc aagagtgact ttaaattccc 60
cacttcaaat atattctctg ttttcttgtc tttcccttaa gacatctctg aatagcttcc 120
ttcaactgcc agtgaaagat agcaggcctg atttcattgg acacaactgt tttcagcccc 180
aattagaggt aggggtttatt ctatttataa taataatcaa cttgtatttt gtttcctctc 240
ccagggtctc tggaaatttg acacagagtg ctataaaaag tatggaaaaa tgtgggggtg 300
agtattctga aaacctccat tggatagacc tgctactgtg aggagggtac cccactgcag 360
gatagtctct gcccaggtct tcatgggatg aagctcttgt caacctaaat acaaacagag 420
agaggttctc tgaaagaaga ggataattac ttgggagtag aatattgcaa tgggaatctg 480
cttgccgtta taaactatgt gcaaattcag ggaggtaaac aagacaaaga tgctccatag 540
aaaatatgag aagaatctca taactgtttt gagataatta ttgttagcta caaagatcaa 600
ta 602

```

```

<210> 213
<211> 602
<212> DNA
<213> Homo sapiens

```

```

<400> 213
catagacaag ggtgagtcct tcagtactta gagaaaattc aagagtgact ttaaattccc 60
cacttcaaat atattctctg ttttcttgtc tttcccttaa gacatctctg aatagcttcc 120
ttcaactgcc agtgaaagat agcaggcctg atttcattgg acgcaactgt tttcagcccc 180
aattagaggt aggggtttatt ctatttataa taataatcaa cttgtatttt gtttcctctc 240
ccagggtctc tggaaatttg acacagagtg ctataaaaag tatggaaaaa tgtgggggtg 300
agtattctga aaacctccat tggatagacc tgctactgtg aggagggtac cccactgcag 360
gatagtctct gcccaggtct tcatgggatg aagctcttgt caacctaaat acaaacagag 420
agaggttctc tgaaagaaga ggaaaattac ttgggagtag aatattgcaa tgggaatctg 480
cttgccgtta taaactatgt gcaaattcag ggaggtaaac aagacaaaga tgctccatag 540
aaaatatgag aagaatctca taactgtttt gagataatta ttgttagcta caaagatcaa 600
ta 602

```

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<210> 214
<211> 603
<212> DNA
<213> Homo sapiens

```

```

<400> 214
agcggaaaaac tcaaggaggt atgaaaataa gatgagtctt aattagaaat gtaaagaatg 60
aatctgggga caggtagaaa gtaagatcac agtccgtttc caaggggtag tccactgagt 120
tcgagcttcc taaaaatggt cttttatctt tatgtacaga aaagacatca caaaattcat 180
tacaaaaatgt cacttactgc tccatgctgg agaaagccat atccttctgg gacttgagtc 240
tgcacattta actacaggtg ctgatctgtt ttgtgcttag atgttcccca tcaactgcca 300
gtatggagat gtattggtga gaaacttgag gcgggaagca gagaaaggca agcctgtcac 360
cttgaaaagag taagtaggag cacagccatg ggggttctgag ctgtcatgag cccttcagc 420
tgcctgccat ggagtcgaca gtcgcactgt tgggttactc cagtgaccag acaaaagcag 480
ggcagcgctg caactccaaa gagccaccta agagggagtg gctcccatga ggcggaagt 540
cagcaaggga aaagggcctt ctctcctgtg cacaggagcc aggatttact tatctgttaa 600
ctt 603

```

<210> 215
 <211> 60
 <212> PRT
 <213> Homo sapiens

<400> 215

Ser	Leu	Ala	Glu	Asp	Glu	Glu	Trp	Lys	Arg	Ile	Arg	Ser	Leu	Leu	Ser
1				5				10					15		
Pro	Thr	Phe	Thr	Ser	Gly	Lys	Leu	Lys	Glu	Met	Phe	Pro	Ile	Thr	Ala
			20					25					30		
Gln	Tyr	Gly	Asp	Val	Leu	Val	Arg	Asn	Leu	Arg	Arg	Glu	Ala	Glu	Lys
		35					40					45			
Gly	Lys	Pro	Val	Thr	Leu	Lys	Asp	Ile	Phe	Gly	Ala				
	50					55					60				

<210> 216
 <211> 603
 <212> DNA
 <213> Homo sapiens

<400> 216

agcggaaaac	tcaaggaggt	atgaaaataa	gatgagtctt	aattagaaat	gtaaagaatg	60
aatctgggga	caggtagaaa	gtaagatcac	agtcggtttc	caaggggtag	tccactgagt	120
tcgagcttcc	taaaaatggt	cttttatctt	tatgtacaga	aaagacatca	caaaattcat	180
tacaaaatgt	cacttactgc	tccatgctgg	agaaagccat	atccttctgg	gacttgagtc	240
tgcacattta	actacaggta	ctgatctgtt	ttgtgcttag	atgttcccc	tcattgcca	300
gtatggagat	gtattggtga	gaaacttgag	gcgggaagca	gagaaaggca	agcctgtcac	360
cttgaaagag	taagtaggag	cacagccatg	gggttctgag	ctgtcatgag	cccttccagc	420
tgctgccat	ggagtcgaca	gtcacactgt	tgggttactc	cagtgaccag	acaaaagcag	480
ggcagcgtg	caactccaaa	gagccaccta	agagggagtg	gtcccatga	ggcggcaagt	540
cagcaagggg	aaagggcctt	ctctcctgtg	cacaggagcc	aggatttact	tatctgttaa	600
ctt						603

<210> 217
 <211> 778
 <212> DNA
 <213> Homo sapiens

<400> 217

cagagcttac	atatcttata	tcatccacac	tcaacacatg	ctactgtagt	tgtctgataa	60
tgggtctctg	tcttcctatg	actgggctcc	ttgacctcag	aggtgagtct	aactcagctt	120
ggtgtctcca	tcacccccag	catagggcca	gctccatcac	tggcaccaga	taaccacctt	180
ctgagggagt	agatggaaga	tgattcagca	gatagttctg	aaagtctgtg	gctctttatg	240
tgtcttgact	ggatatgtgg	gtttcttgct	gcattgtatg	tgggaaggacg	gtaagaggtg	300
ctgattttaa	ttttcctat	ctttctccac	tcagcatctt	tggggcctac	agcatggatg	360
tgattactgg	cacatcattt	ggagtgaaca	tcgactctct	caacaatcca	caagaccctt	420
ttgtggagag	cactaaaaag	ttcctaaaat	ttggtttctt	agatccatta	tttctctcaa	480
taagtatgtg	ggctattatt	tctttctctc	tttttaaaaa	taactgcttt	cttgacatat	540
aattcacata	tcgtataatt	catccactta	aaaggtacaa	ttccattgtt	tttaagataa	600
tcaaaaatat	gtatgaccat	tactattgta	aactaaaatg	tttttgtaa	tctagagccc	660
tcacacactt	tagctgtcaa	cacccccacca	caaaccacac	tgccctaagc	atccaataat	720
caactttctg	cctctataga	tttgccattt	ctggacactt	catagaaata	atatcatt	778

<210> 218
 <211> 778
 <212> DNA

<213> Homo sapiens

<400> 218

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cagagcttac atatcttata tcatccacac tcaacacatg ctactgtagt tgtctgataa 60
tgggtctctg tcttcctatg actgggctcc ttgacctcag aggtgagtct aactcagctt 120
ggtgtctcca tcacccccag catagggcca gctccatcac tggcaccaga taaccacctt 180
ctgagggagt agatggaaga tgattcagca gatagttctg aaagtctgtg gctctttatg 240
tgtcttgact ggatatgtgg gtttcttgct gcatgtatag tggaggagac gtaagagggtg 300
ctgattttaa ttttccatat ctttctccac tcagcatctt tggggcctac agcatggatg 360
tgattactgg cacatcattt ggagtgaaca tgcactctct caacaatcca caagacccct 420
ttgtggagag cactaagaag ttctataaat ttggtttctt agatccgta tttctctcaa 480
taagtatgtg ggctattatt tctttctctc tttttaaaaa taactgcttt cttgacatat 540
aattcacata tcgtataatt catccactta aaagggtacaa ttccattgtt ttttaagataa 600
tcaaaaatat gtatgaccat tactattgta aactaaaatg tttttgtcaa tctagagccc 660
tcacacactt tagctgtcaa caccacacca caaacccac tgccttaagc atccaataat 720
caactttctg cctctataga tttgcctatt ctggacactt catagaaata atatcatt 778

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<210> 219

<211> 778

<212> DNA

<213> Homo sapiens

<400> 219

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cagagcttac atatcttata tcatccacac tcaacacatg ctactgtagt tgtctgataa 60
tgggtctctg tcttcctatg actgggctcc ttgacctcag aggtgagtct aactcagctt 120
ggtgtctcca tcacccccag catagggcca gctccatcac tggcaccaga taaccacctt 180
ctgagggagt agatggaaga tgattcagca gatagttctg aaagtctgtg gctctttatg 240
tgtcttgact ggatatgtgg gtttcttgct gcatgtatag tggaggagac gtaagagggtg 300
ctgattttaa ttttccatat ctttctccac tcagcatctt tggggcctac agcatggatg 360
tgattactgg cacatcattt ggagtgaaca tgcactctct caacaatcca caagacccct 420
ttgtggagag cactaagaag ttctataaat ttggtttctt agatccatta tttctctcaa 480
taagtatgtg ggctattatt tctttctctc tttttaaaaa taactgcttt cttgacatat 540
aattcacata tcgtataatt catccactta aaagggtacaa ttccattgtt ttttaagataa 600
tcaaaaatat gtatgaccat tactattgta aactaaaatg tttttgtcaa tctagagccc 660
tcacacactt tagctgtcaa caccacacca caaacccac tgccttaagc atccaataat 720
caactttctg cctctataga tttgcctatt ctggacactt catagaaata atatcatt 778

```

<210> 220

<211> 778

<212> DNA

<213> Homo sapiens

<400> 220

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cagagcttac atatcttata tcatccacac tcaacacatg ctactgtagt tgtctgataa 60
tgggtctctg tcttcctatg actgggctcc ttgacctcag aggtgagtct aactcagctt 120
ggtgtctcca tcacccccag catagggcca gctccatcac tggcaccaga taaccacctt 180
ctgagggagt agatggaaga tgattcagca gatagttctg aaagtctgtg gctctttatg 240
tgtcttgact ggatatgtgg gtttcttgct gcatgtatag tggaggagac gtaagagggtg 300
ctgattttaa ttttccatat ctttctccac tcagcatctt tggggcctac agcatggatg 360
tgattactgg cacatcattt ggagtgaaca tgcactctct caacaatcca caagacccct 420
ttgtggagag cactaagaag ttctataaat ttggtttctt agatccatta tttctctcaa 480
taagtatgtg ggctattatt tctttctctc tttttaaaaa taactgcttt cttgacatat 540
aattcacata tcgtataatt catccactta aaagggtacaa ttccattgtt ttttaagataa 600
tcaaaaatat gtatgaccat tactattgta aactaaaatg tttttgtcag tctagagccc 660
tcacacactt tagctgtcaa caccacacca caaacccac tgccttaagc atccaataat 720
caactttctg cctctataga tttgcctatt ctggacactt catagaaata atatcatt 778

```

<210> 221

<211> 670

<212> DNA

<213> Homo sapiens

<400> 221

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agaaggtgcc attgatctca ctgctgtagt ggtgtttcct atgtatagac ctgcccttgc 60
tcagtcgccg gcctgaaaga agggcaaaca tgataaaagg aatgggttcc agttgagaat 120
catgatgttc ttattcttat tactggtaga gaaaattata attgctccag gtaaagtttg 180
cattttcaat gatttccttt tgttcgtttt gtttttccca cagtactctt tccattcctt 240
accccgagttt ttgaagcatt aaatgtctct ctgtttccaa aagataccat aaatttttta 300
agtaaatctg taaacagaat gaagaaaagt cgctcaacg acaaacaaaa ggtaaaatct 360
gatggtggtt aaatgacgat gtttaggttt tgataaattt agattttata cacatgatag 420
agcatgtatc tgtattttta aaaataaaga cagagaactt atgttttagaa caagagaagc 480
catttggtag aaataaagaa ggagattggg gaaggagatg agaatgagtc agagagatag 540
catttaaaac ttgaaatcag gcacaacaat tagtatgtca tgatataaac agtattgaga 600
taaaatttta ccacttctct tccctttaat aaattgtcaa aggataaagt ttctgtgttg 660
aaaatatatt                                     670

```

<210> 222

<211> 670

<212> DNA

<213> Homo sapiens

<400> 222

```

agaaggtgcc attgatctca ctgctgtagt ggtgtttcct atgtatagac ctgcccttgc 60
tcagtcgccg gcctgaaaga agggcaaaca tgataaaagg aatgggttcc agttgagaat 120
catgatgttc ttattcttat tactggtaga gaaaattata attgctccag gtaaagtttg 180
cattttcaat gatttccttt tgtttgtttt gtttttccca cagtactctt tccattcctt 240
accccgagttt ttgaagcatt aaatgtctct ctgtttccaa aagataccat aaatttttta 300
agtaaatctg taaacagaat gaagaaaagt cgctcaacg acaaacaaaa ggtaaaatct 360
gatggtggtt aaatgacgat gtttaggttt tgataaattt agattttata cacatgatag 420
agcatgtatc tgtattttta aaaataaaga cagagaactt atgttttagaa caagagaagc 480
catttggtag aaatacagaa ggagattggg gaaggagatg agaatgagtc agagagatag 540
catttaaaac ttgaaatcag gcacaacaat tagtatgtca tgatataaac agtattgaga 600
taaaatttta ccacttctct tccctttaat aaattgtcaa aggataaagt ttctgtgttg 660
aaaatatatt                                     670

```

<210> 223

<211> 826

<212> DNA

<213> Homo sapiens

<400> 223

```

agataaagta ctttttaggat cattcaaggc acacacccat aacactgagt atgtaagaca 60
gaaatgctct ctctggaaat tacagcagtg ctggtgctgg gatgccatga tgaggagtgt 120
gtggcccaaca atcatgtaga ccttgggaaa acctggatta aaatgatttt gcatcatcct 180
ggcctgtat aagatacata tcagaatgaa aaccactccc agtgtgactt tgaattgctt 240
ttccattttt tcttcttggtg attagagagc ttcacttaga tttcatctaa gctgtgatgt 300
tgtacgttga cctgattttac ctaaaatgtc tttcctctcc tttcagctct gtctgatctg 360
gagctcgag cccagtcatt aatcttcatt tttgctggct atgaaaccac cagcagtgtt 420
ctttccttca ctttatatga actggccact caccctgatg tccagcagaa actgcaaaag 480
gagattgatg cagtttttgc caataagggtg aggggatgac ccctggagat gaaggggaaga 540
ggtgaagcct tagcaaaaat gcctcctcac cactccccag gagaattttt ataaaaagca 600
taatcactga ttccttcact gacataatgt aggaagcctc tgaggagaaa aacaaaggga 660
gaaacataga gaacggttgc tactggcaga agcataagat ctttgtacaa tattgctggc 720
cctggttcac ctgtttactg ttatcacaat aatgctaagt aaaaaaaaaa aaaaaaaaaa 780
aaaaaaaaaa aggagtgtgg cgagaagatg gccaaacagg aacagc                                     826

```

<210> 224

<211> 826

<212> DNA

<213> Homo sapiens

<400> 224

```

agataaagta ctttttaggat cattcaaggc acacacccat aacactgagt atgtaagaca 60
gaaatgctct ctctggaaat tacagcagtg ctggtgctgg gatgccatga tgaggagtgt 120
gtggcccaca atcatgtaga ccttgggaaa acctggatta aaatgatttt gcgtcatcct 180
ggccctgtat aagatacata tcagaatgaa aaccactccc agtgtgactt tgaattgctt 240
ttccattttt tcttcttggg attagagagc ttcacttaga tttcatctaa gctgtgatgt 300
tgtacgttga cttgattttac ctaaaatgtc tttcctctcc tttcagctct gtctgatctg 360
gagctcgag cccagtcaat aatcttcatt tttgctggct atgaaaccac cagcagtgtt 420
ctttccttca ctttatatga actggccact caccctgatg tccagcagaa actgcaaaag 480
gagattgatg cagtttttggc caataagggtg aggggatgac ccctggagat gaaggggaaga 540
ggtgaagcct tagcaaaaat gcctcctcac cactccccag gagaattttt ataaaaagca 600
taatcactga ttccttcact gacataatgt aggaagcctc tgaggagaaa aacaaagggg 660
gaaacataga gaacggttgc tactggcaga agcataagat ctttgtacaa tattgctggc 720
cctggttcac ctggtttactg ttatcacaat aatgctaagt aaaaaaaaaa aaaaaaaaaa 780
aaaaaaaaaa aggagtgtgg cgagaagatg gccaaacagg aacagc 826

```

<210> 225

<211> 616

<212> DNA

<213> Homo sapiens

<400> 225

```

caggcctggc acagagtcag tgctccataa atatttttgtt aaacgatgga tgggtgagtgc 60
ttttactatc cagtattttac ccagcttata gattaaagtat gaagagttca agatacatgg 120
tgtaagagt cgtttttata tgcttgcaaa gcatttttgt catatttttt ctactttgct 180
tccatctttt cttctttcac ttcattttatt aattctccat atgcttgttt aactattgca 240
gatccccctg aaattagaca cgcaaggact tcttcaacca gaaaaacca ttgttctaaa 300
ggtggattca agagatggaa ccctaagtgg agaatgagtt attctaagga tttctacttt 360
ggtcttcaag aaagctgtgc ccagaacac cagagatttc aacttagtca ataaaaacct 420
gaaataaaga tgggcttaat ctaatgtact gcatgagtag ttggtgattt tgtacattca 480
ttgagctctc ccagagtcctg tgtagagtgt tgtgcattat gtagtataaa ggaggtgacc 540
aggtaagtga cagataggtg gactcagctt ctctgcttct cataggacta cctctacca 600
cctctagtta gcatta 616

```

<210> 226

<211> 624

<212> DNA

<213> Homo sapiens

<400> 226

```

gattaagctt ttcatgattc ctcatagaac atgaactcaa aagagggtcag caaaggggtg 60
tgtgcgattc tttgctattg gctgcagcta tagccctgcc tccttctcca gcacataaat 120
ctttcagcag cttggctgaa gactgctgtg cagggcaggg aagctccagg caaacagccc 180
agcaaacagc agcactcagc taaaaggaag actcacagaa cacagttgaa gaaggaaagt 240
ggcgatggac ctcatcccaa atttggcggt ggaaacctgg cttctcctgg ctgtcagcct 300
ggtgctcctc tatctgtgag taactgtcca aactcctctc tttgtttcct tggacttggg 360
gtgctaactc ggcccctttc cccttatctg ttttgaagat caaaagagat gttcaaggag 420
aagtagctga agtgttggac gctacaaacg catagaagtt attattatct tatgcagatc 480
tatgaatgaa taaataagca tttctcccat ccaccttcta attttgggtga ctaggaggg 540
ttagggacag catttggtag tgggaatgat ttgattagct tagatctgac gaagactaat 600
caatgaaaac atggcagcgg caga 624

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<210> 227

<211> 624

<212> DNA

<213> Homo sapiens

<400> 227

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gattaagctt ttcatgattc ctcatagaac atgaactcaa aagagggtcag caaaggggtg 60

```

```

tgtgcgattc tttgctattg gctgcagcta tagccctgcc tccttctcca gcacataaat 120
ctttcagcag cttggctgaa gactgctgtg cagggcaggg aagctccagg caaacagccc 180
agcaaacagc agcactcagc taaaaggaag actcacagaa cacagttgaa gaaggaaagt 240
ggcgatggac ctcatcccaa atttggcggg ggaaacctgg cttctcctgg ctgtcagcct 300
ggtgctcctc tatctgtgag taactgtcca aactcctctc tttgtttcct tggacttggg 360
gtgctaatcg ggcccctttt cccttatctg ttttgaagat caaaagagat gttcaaggag 420
aagtagctga agtggttgac gctacaaacg catagaagtt attattatct tatacagatc 480
tatgaatgaa taaataagca tttctcccat ccaccttcta attttggtga ctaggagggt 540
ttagggacag catttggtag tgggaatgat ttgattagct tagatctgac gaagactaat 600
caatgaaaac atggcagcgg caga                                     624

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<210> 228
 <211> 626
 <212> DNA
 <213> Homo sapiens

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<400> 228
gaacagttcc ctaccacgtg gagcatttgc aattaaaagg agactgagat atagaggcag 60
gagaccacac cagatggctg ggtctcccca ctcccacccc cgccccacat acactcagaa 120
gaggctaggc atctaggatc tccattgagc atcttgaata tggcttgcca taatatcata 180
tacagtcaat aaatatttgt taaataagga tgccctcttca atatattttg tgcaaccatg 240
aagatcacca caactaatgt gagaaaaaat gtttctgttg aactctagtc tttaggccca 300
gtgggattta tgaaaagtgc catctcttta gctgaggatg aagaatggaa gagaatacag 360
tcattgctgt ctccaacctt caccagcgga aaactcaagg aggtatgaaa ataagatgag 420
tcttaattag aaatgtaaag aatgaatctg gggacaggta gaaagtaaga tcacagtcgg 480
tttccaaggg gtagtccact gagttcgagc ttccataaaa tggctcttta tctttatgta 540
cagaaaagac atcacaaaat tcattacaaa atgtcactta ctgctccatg ctggagaaag 600
ccatatecct ctgggacttg agtctg                                     626

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<210> 229
 <211> 60
 <212> PRT
 <213> Homo sapiens

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<400> 229
Ser Val Phe Thr Asn Arg Arg Ser Leu Gly Pro Val Gly Phe Met Lys
  1             5             10             15

Ser Ala Ile Ser Leu Ala Glu Asp Glu Glu Trp Lys Arg Ile Gln Ser
             20             25             30

Leu Leu Ser Pro Thr Phe Thr Ser Gly Lys Leu Lys Glu Met Phe Pro
  35             40             45

Ile Ile Ala Gln Tyr Gly Asp Val Leu Val Arg Asn
  50             55             60

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<210> 230
 <211> 626
 <212> DNA
 <213> Homo sapiens

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<400> 230
gaacagttcc ctaccacgtg gagcatttgc aattaaaagg agactgagat atagaggcag 60
gagaccacac cagatggctg ggtctcccca ctcccacccc cgccccacat acactcagaa 120
gaggctaggc atctaggatc tccattgagc atcttgaata tggcttgcca taatatcata 180
tacagtcaat aaatatttgt taaataagga tgccctcttca atatattttg tgcaaccatg 240
aagatcacca caactaatgt gagaaaaaat gtttctgttg aactctagtc tttaggccca 300
gtgggattta tgaaaagtgc catctcttta gctgaggatg aagaatggaa gagaatacgg 360
tcattgctgt ctccaacctt caccagcgga aaactcaagg aggcataaaa ataagatgag 420

```

```

tcttaattag aaatgtaaag aatgaatctg gggacaggta gaaagtaaga tcacagtccg 480
tttccaaggg gtagtccact gagttcgagc ttcctaaaaa tggctcttta tctttatgta 540
cagaaaagac atcacaaaat tcattacaaa atgtcactta ctgctccatg ctggagaaag 600
ccatatcctt ctgggacttg agtctg 626

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<210> 231

<211> 626

<212> DNA

<213> Homo sapiens

<400> 231

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gaacagttcc ctaccacgtg gagcatttgc aattaaagg agactgagat atagaggcag 60
gagaccacac cagatggctg ggtctcccca ctcccacccc cgccccacat acactcagaa 120
gaggctaggg atctaggatc tccattgagc atcttgaata tggcttgcca taatatcata 180
tacagtcaat aaatatttgt taaataagga tgctcttca atatattttg tgcaaccatg 240
aagatcacca caactaatgt gagaaaaaat gttctgttg aactctagtc tttaggccca 300
gtgggattta tgaaaagtgc catctcttta gctgaggatg aagaatggaa gagaatcgg 360
tcattgctgt ctccaacctt caccagcgga aaactcaagg aggtatgaaa ataagatgag 420
tcttaattag aaatgtaaag aatgaatctg gggacaggta gaaagtaaga tcacagtcca 480
tttccaaggg gtagtccact gagttcgagc ttcctaaaaa tggctcttta tctttatgta 540
cagaaaagac atcacaaaat tcattacaaa atgtcactta ctgctccatg ctggagaaag 600
ccatatcctt ctgggacttg agtctg 626

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<210> 232

<211> 623

<212> DNA

<213> Homo sapiens

<400> 232

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attggacatg atagctagat ttgtttcagg aaaacatcct gctttccaag gatttagatg 60
aatgtttttg ttcactgggtg actcaggtaa cacgtcttca agaagccata gggagggtga 120
gggagggaag tcaagaaggg aggttgagga ctgcactttt gatttacttc tgacttcacg 180
agtcactttc tgcgaaagaa atctctcctt ttgcttctag caccgactag atttccttca 240
gctgatgatt gactcccaga attcgaaaga aactgagtc cacaaaggta accaaggagt 300
gcttctgagg gctactggcg gggacactaa gagggagggc cttgttctga aaatgtgcag 360
gaagtattcc aggaagatga gaatttttgc cacatagcag aacaacacac atttagatgt 420
tataaatggt agctggaggc actttccaga agcccacagg tatagccatg ttccaggctg 480
aaagggcaac cctaagcaaa cctagaatgc ttggaggaca gtcagtgggt tgtggatcac 540
ctacatgaga tcaaatgcca gttctcagcc tcttcagat ccaccaagtg agaacctcta 600
cttggaatt tatatcaaac ata 623

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<210> 233

<211> 616

<212> DNA

<213> Homo sapiens

<400> 233

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caggcctggc acagagtcag tgctccataa atattttgtt aaacgatgga tggtgagtgc 60
ttttactatc cagtatttac ccagcttata gattaagtat gaagagttca agatacatgg 120
tgttaagagt cgtttttata tgcttgcaaa gcatttttgt catatttttt ctactttgct 180
tccatctttt cttctttcac ttcatttatt aattctccat atgcttggtt aactattgta 240
gatccccttg aaattagaca cgcaaggact tcttcaacca gaaaaacca ctgttctaaa 300
ggtggattca agagatggaa ccctaagtgg agaatgagtt attctaagga tttctacttt 360
ggtcttcaag aaagctgtgc cccagaacac cagagatttc aacttagtca ataaaacctt 420
gaaataaaga tgggcttaat ctaatgtact gcatgagtag ttggtgattt tgtacattca 480
ttgagctctc ccagagtctg tgtagagtgt tgtgcattat gtagtataaa ggaggtgacc 540
aggtaagtga cagataggtg gactcagctt ctctgcttct cataggacta cctctacca 600
cctctagtta gcat 616

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<210> 234
 <211> 59
 <212> PRT
 <213> Homo sapiens

<400> 234

Met Arg Phe Ala Leu Met Asn Met Lys Leu Ala Leu Ile Arg Val Leu

1 5 10 15

Gln Asn Phe Ser Phe Lys Pro Cys Lys Glu Thr Gln Ile Pro Leu Lys
 20 25 30

Leu Asp Thr Gln Gly Leu Leu Gln Pro Glu Lys Pro Thr Val Leu Lys
 35 40 45

Val Asp Ser Arg Asp Gly Thr Leu Ser Gly Glu
 50 55

<210> 235
 <211> 830
 <212> DNA
 <213> Homo sapiens

<400> 235

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ccagactgtg	cccttgagga	actcacctct	gctaagggaa	acaggcacag	aaaccacaa	120
gggtggtaga	gaggaaatag	gacaatagga	ctgtgtgagg	gggataggag	gcaccagag	180
gaggaaatgg	ttacatctgt	gtgaggaggt	tggttaaggaa	agactttaat	agaaggggtc	240
tgtctggctg	ggcttgcaag	gatgtgtagg	agtcacttag	ggggcacaa	tacactccag	300
gcagagggaa	ttgcatgggt	aaagatctgc	agttgtggct	tgtggggatg	gatttcaagt	360
attctggaat	gaagacagcc	atggaaacaa	gggcaggtga	gaggatattt	aagaggcttc	420
atgccaatgg	ctccacttca	gtttctgata	agaactcagg	ttccgtggac	tccctgataa	480
aactgattaa	gttgtttatg	attccccata	gaatatgaac	tcaaaggagg	taagcaaagg	540
ggtgtgtgcg	attctttgct	accggctgca	gctgcagccc	cacctccttc	tccagcacat	600
aaacatttca	gcagcttgac	ctaagactgc	tgtgcagggc	agggatgctc	caggcagaca	660
gcccagcaaa	caacagcaca	cagctgaaag	taagactcag	aggagacagt	tgaagaaggc	720
aagtggcgat	ggacctcatc	ccaaatttgg	cggtggaaac	ctggcttctc	ctggctgtca	780
gcctgggtgct	cctctatctg	tcagtaactg	tccagattcc	tctcctctgt		830

<210> 236
 <211> 775
 <212> DNA
 <213> Homo sapiens

<400> 236

ggagtgaacct	gattttccag	gtgctgtctg	tcaccctttt	ctttgactag	gaaagggaa	60
tccttgaccc	cttgcgcttc	tcaagtgagg	caatgcctcg	ccctgcttcg	gcttgtgcac	120
agcacgctgc	accactgtc	ctgcacccac	tgtctggcac	tccctagtga	gatgaaccgc	180
gtacctcaga	tgaaaatgca	gaaattaccc	gtcttctgtg	tactcacac	tgggagctgt	240
agaccggagc	tgttcctatt	cggccatctt	ggctccaccc	cccgagtttt	ggcttttaaat	300
tgaagtgtga	ttgatgtggg	aaggagataa	tgccatgcat	ttatgagcac	atattagagg	360
gtctgagaca	atgcatgtga	taaaagggtca	cctaaggaag	aaaaaaagaa	caaggggaaga	420
cactggaaaag	aacgtgatgc	tgggagtccc	tggggccacca	aagtctggag	aaaagtggta	480
accacaaggc	tcccagccta	gtttcactga	agacctcgac	actaggtgac	ttatgggatc	540
cttggttagga	caagccttga	aaagttttac	aatagcaaat	gtggacgttg	tcagaaccaa	600
atgatgtcac	gtgtgtatatt	gtgtgtgtgt	gtcagtgtgt	gtgttttaaaa	atcatgacaa	660
ataaagcagg	ctgtgaagag	gggattccca	tgctcgtgtg	cctgataaca	caactatcac	720
aaacgcctttg	cgaaaccaca	agtttgcaca	aaggcaatcc	caaccttaca	caaaa	775

<210> 237

<211> 25
<212> DNA
<213> Homo sapiens

<400> 237
ttgttgggaa atgttttgtc ctatc

25

<210> 238
<211> 24
<212> DNA
<213> Homo sapiens

<400> 238
acagggagtt gaccttcata cggt

24

<210> 239
<211> 33
<212> DNA
<213> Homo sapiens

<400> 239
tcagggtctc tggaaatttg acacagagtg cta

33

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